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Qualcomm Incorporated  
Patents Department  
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EXAMINER

BROWN, RUEBEN M

ART UNIT PAPER NUMBER

2611

DATE MAILED: 06/16/2004

25

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/075,152

Applicant(s)

MORLEY ET AL.

Examiner

Reuben M. Brown

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-14,16-41,43-55,59-70,72-82,84-121 and 123-150 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-14,16-41,43-55,59-70,72-82,84-121 and 123-150 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to the claims have been considered but are not persuasive. Applicant argues on page 2 that the combination of Gulla, Banker and Harper does not teach the claimed features of independently receiving and storing compressed encrypted image and audio information associated with at least one program and audio program. On page 3, applicant further argues that Harper does not teach or reasonably suggest "the claimed limitation of independently receiving a plurality of audio programs associated with a video program, and selectively playing one of the audio programs to be played with the image program."

Examiner respectfully disagrees with applicant's assertions. In particular, it is pointed out that col. 3, lines 52-56 of Harper reads, " In any event, with the present invention it is inconsequential whether the interactive elements are broadcast synchronously, serially, *on separate channels*, embedded in the video, transmitted during or *before the program*, *stored in external data storage*, etc. Any of these elements, no matter where they come from, are called up by the interactive box at designated trigger points through the use of overlaid logic sent down in embedded codes in the signal or resident software at the receiver location".

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Furthermore, in col. 7, lines 12-31, Harper discloses, "There are a number of different ways to effectively forward the necessary audio segments for a given interactive event to the interactive program box 600. Different embodiments for delivering these audio segments include digital & analog transmission embodiments including serial or parallel paths, as described below. The interactive elements may be broadcast synchronously (alternative responses aligned in time), serially, embedded in the existing video and/or *transmitted* before or during the program. Audio segments tagged for a given interactive event, can be sent to the interactive program boxes 600 *much earlier than the scheduled event* during the program, in which case the segments are preferably stored in the temporary memory... With the present invention, it makes no difference how the audio segments reach the interactive program box 600 at the predetermined trigger points".

Therefore, it is clear that Harper teaches that audio information, associated with at least one image program and audio program may be transmitted, received & stored independently and separately from the associated image program, also see col. 14, lines 61-67. Examiner points out that Harper specifically discloses that one of the benefits of such an independent transmission, is so that each particular receiver, (i.e. interactive program box 600) may have different audio information, for the same video information, see col. 11, lines 8-30 & col. 15, lines 30-40.

*Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-14, 16-41, 43-48, 61-70, 72-82, 84-115 & 126-150 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gulla, (WO # 97/06637) in view of Banker, (U.S. Pat # 6,005,938), in view of Harper, (U.S. Pat # 5,585,858).

Considering amended claims 1 & 70, Gulla teaches receiving compressed images and audio information and decompressing the data. Gulla also teaches transmitting the data to a projection system that receives the decompressed image programs for display to the viewers; see (Abstract; Fig. 1; Fig. 2; pg. 7, lines 9-16; pg. 7, lines 24-27 thru pg. 8, lines 1-9 & pg. 15, lines 21-23). Gulla teaches that the motion pictures may be compressed and encoded according to MPEG-1 or MPEG-2 protocols, pg. 8 & pg. 9.

As for the additional feature of encryption, Gulla does not discuss this technology. Nevertheless, Banker provides a standard teaching of encryption/decryption techniques, Abstract; col. 3., lines 30-50 & col. 5, lines 41-67. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Gulla to include

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encryption/decryption technology for the improvement of preventing unauthorized receivers from displaying particular movies, as taught by Banker.

Gulla also does not discuss the details of the whether or not the system independently receives and stores compressed and encrypted image and audio data. Nevertheless, Harper teaches that multiple audio programs, which may be associated with a particular video program, may be transmitted over an entirely differently medium as the video program and stored separately; see col. 3, lines 37-57; col. 5, lines 44-46 & col. 11, lines 25-30. It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the receiving algorithm of Gulla, according to the teachings of Harper, for the desirable advantage of more flexible system.

Considering claims 3, 7-8, 72 & 76-77, Harper teaches a receiving program box 600, which stores audio separately from video in the Audio memory 702, Fig. 3. Thus Harper enables the operator at the receiver to choose between various audio segments, (col. 5, lines 64-67; col. 6, lines 49-61). As for claims 7-8 & 76-77, Harper teaches that the audio segments comprised of multiple audio tracks are transmitted, whereas at least one segments are synchronized with the video.

Considering claims 4-5 & 73-74, Gulla discusses the use of MPEG encoding, which includes variable bit rate encoding, pg. 8, lines 15-16.

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Considering claims 6 & 75, Gulla teaches that the Control Center 3 may receive video information from a live recording event via a Transport Unit 1, see col. 3, lines 50-64. Gulla furthermore discloses that video images may be transmitted from the control center 3, to the presentation systems 4 utilizing MPEG compression, but does not explicitly state that MPEG may be utilized to compress video images for transmission from the Transport Unit to the Control Center 3. It would have been obvious for one ordinary skill in the art at the time the invention was made to modify Gulla by utilizing MPEG for encoding video data from the Transport Unit, at least for the desirable benefit of a well known encoding technique that is compatible with the Control Center 3 system.

Regarding claims 9 & 78, the system in Gulla generates images in a digital format.

Considering claims 10 & 79, official notice is taken that digital cameras were well known in the art at the time the invention was made. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Gulla with the well-known feature of a digital camera, at least for the desirable improvement of initially generating a more easily editable video format, than the conventional analog format.

As for claims 11 & 80, Gulla discloses that the invention is applicable to the transmission of live video; see pg. 17, lines 1-9.

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Considering claim 12, Official Notice is taken that telecine movies were very well known in the art at the time the invention was made. It would have obvious for one of ordinary skill in the art at the time the invention was made, to utilize telecine format at least for the known benefit of its known quality of images.

Considering claims 13 & 81, Gulla teaches that video images may at least be generated in the transporter units 1, see Fig. 1 & pg. 7, lines 14-16, but fails to especially discuss the use of computer workstation in the process. Official Notice is taken that at the time the invention was made, computer workstations were very well known in the art. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Gulla to use a computer workstation in generating video images for the well-known advantages of a more efficient process.

Considering claims 14 & 82, Gulla stores compressed audio/video at a central facility prior to transmission to remote locations.

Considering claims 16-17, 84, 137 & 144, encryption/decryption technology such as in Banker, operates by transmitting a key to the receiver system. Also Banker teaches that the session key may be transmitted to the receiving system at a time separate from the transfer of the encrypted information, see col. 1, lines 37-67.



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Considering claims 18, 85, 138-139 & 145-147, Banker teaches a system that includes a time interval for the valid use of a session key, which avoids receiving using session for indefinite periods of time without appropriate pay or authorization, see col. 2, lines 24-65; col. 3, lines 5-30 & col. 4, lines 40-58.

Considering claims 19, 86 & 140, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the combination of Gulla & Banker to overwrite invalid decryption key information for the desirable advantage of re-using its memory, thereby conserving storage capacity at the receiver.

Considering claims 20, 87, 141 & 149, Gulla discloses that the video may be watermarked with certain indicia for security purposes, see pg. 12, lines 16-28.

Considering claims 21, 88, 142 & 150, Gulla discloses introducing the location of a terminal as a watermark in a video reproduction for security purposes, but does mention the inclusion of a presentation time. Gulla teaches that the control center 3, monitors the operation of video reproducing apparatus at its corresponding presentation systems, see pg. 5, lines 12-15 & pg. 7, lines 17-20. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Gulla to also include the time of presentation as a watermark, as an additional security feature.

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Considering claims 22 & 89, Gulla discloses the modulation and transmission of video data over a wireless (satellite) link between the control center 3 and the receiver terminals 4, see Fig. 1 & pg. 8, lines 1-9.

Considering claims 23 & 90, in Gulla the compressed video data is transmitted to any of one or more of a plurality of receiver terminals at various remote and separate cinema halls, pg. 10, lines 1-9.

Considering claims 24-25 & 91-92, Gulla teaches that the chosen data flow of 34- 45 Mbits/sec is obtained by compressing the original image, with a certain algorithm; see pg. 14, lines 1-10. Thus the transmission bit rate corresponds with the compression rate, however Gulla does not explicitly state that it is a direct correspondence. Furthermore, Gulla discloses that the signal transmission rate of 34-45 Mbits/sec is selected according to the desired image quality. Official Notice is taken that at the time the invention was made it was well known in the art to design transmission systems which trade-off between the amount image compression and transmission bit rates/bandwidth. It would have been obvious for of ordinary skill in the art at the time the invention was made, to operate Gulla in a manner wherein (within a given threshold range) the compression bit rate decreases, for instance as the transmission bit rate increases, thereby increasing the image quality of the delivered video information.

Considering claims 26 & 93, Official Notice is taken that numerous error detection algorithms, such as adding a checksum to transmitted data, was old in the art at the time the

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invention was made. It would have been obvious for of ordinary skill in the art at the time the invention was made, to operate Gulla in manner wherein checksum technology is used, in order to ensure video data is correctly received by the receiving system.

Considering claims 27 & 94, Gulla discloses the use of satellites in order to transmit video data, see Fig. 1, Fig. 2 & Fig. 3.

Considering claims 28 & 95, Gulla discusses that the system includes means for monitoring the quality of satellite transmissions to receiver terminals, in order to ensure transmission quality, (pg. 5, lines 7-12; pg. 8, lines 14-15 & pg. 10, lines 9-15).

Considering claims 29 & 96, Gulla discloses two-way transmission, pg. 14, lines 14-27

Considering claims 30 & 97, even though Gulla discusses controlling communication between the satellite and the receiver terminal (pg. 16, lines 4-9), the reference fails to discuss the well-known feature of encryption/decryption of video data transmitted over a network. However, Banker is directed to such a technology, Abstract. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Gulla with the known technology of encryption/decryption for the desirable improvement of ensuring that only authorized receivers are enabled to process the received video data, as taught by Banker, col. 1, lines 30-45.

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Considering claims 31-32 & 98-99, Gulla teaches that if a packet is received which is below a certain quality threshold, and then the receiver terminal provides for its substitution, pg. 13, lines 17-20. However Gulla does not explicitly disclose the use of request-retransmission technology. Official Notice is taken that request-retransmission was very well known in the art at the time the invention was made. It would have been obvious for of ordinary skill in the art at the time the invention was made, to operate Gulla in a manner utilizing the request retransmission technique, at least for the known benefits of an efficient protocol for ensuring the receiver only decodes image data above a certain threshold.

Considering claims 33 & 100, see Gulla pg. 14, lines 14-28.

Considering claims 34-35 & 101-102, Gulla teaches a two-way transmission system, which may include a telephone link, see pg. 8, lines 23-28 thru pg. 9, lines 1-10 & Fig. 2.

Considering claims 36 & 103, Gulla discloses the use of packet technology, pg. 10, lines 16-28.

Considering claims 37 & 104, Gulla fails to disclose the use of the Internet in distributing video information. Official Notice is taken that the use of the Internet was very well known at the time the invention was made. It would have been obvious for of ordinary skill in the art at the time the invention was made, to modify Gulla in order to additionally/alternatively transmit

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video data over the Internet, at least for the known desirable improvement of reaching a wider audience.

Considering claims 38-39 & 105-106, Gulla discloses that the system includes two-way transmission over a satellite connection, which reads on two-way wireless; see Fig. 2 & Fig. 3.

Considering claims 40-41 & 107-108, Gulla is directed to a network management system for managing a network of presentation systems, using an operational control of the presentation systems; see Abstract & pg. 3, lines 26-28 thru pg. 4, lines 1-28.

Considering claims 43 & 109-110, Gulla teaches transmission of compressed information to a preselected set of auditoriums; pg. 1, lines 1-10 & pg. 11, lines 4-8.

Considering claims 44 & 111, Gulla discloses the use of a means for preventing non-authorized copying of images, pg. 8, lines 17-25.

Considering claims 45 & 112, Gulla discloses the use of memory erasure of video information when a non-authorized physical intrusion is detected, pg. 13, lines 6-10.

Considering claims 46-47 & 113-114, Gulla discloses the use of multi-room cinema halls as an advantage for remotely simultaneously transmitting a live or recorded video program, to more individuals than a single room cinema hall, pg. 17, lines 17-25. As for the additional

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claimed feature of simultaneously or staggering the time of delivery to some of the cinema halls, Official Notice is taken that at the time the invention was made, it was well known to provide video information to a plurality of destinations according to a schedule. It would have been obvious for of ordinary skill in the art at the time the invention was made, to modify Gulla to transmit video data to a plurality of different auditoriums within a cinema hall, according to a schedule at least for the desirable improvement of a more flexible system.

Considering claims 48 & 115, the transmitted video in Gulla may be used to create presentation events in at least one auditorium.

Considering claims 61 & 126, Gulla at pg. 1, lines 1-6 meets the claimed features.

Considering claims 62 & 127, Gulla discloses the use optical fiber technology, pg. 3, lines 14-19.

Considering claims 63, 128 & 134, Official Notice is taken that at the time the invention was made using a high speed wire/coaxial cable network to transmit video data was well-known in the art at the time the invention was made. It would have been obvious for of ordinary skill in the art at the time the invention was made, to modify Gulla to utilize high-speed wire transmission, at least in order to take advantage of existing hardware.

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Considering claim 64, Gulla discloses transfer of video information using satellite transmission, which reads on wireless transmission.

Considering claims 65 & 129, Gulla discloses the very old art of storing motions pictures on a transportable storage medium and transferring to presentation systems, pg. 1, lines 13-25.

Considering claims 68-69 & 132-133, Gulla discloses that video presentations may be stored or archived both at a central facility or receiver system; pg. 7, lines 9-14 & pg. 12, lines 11-16.

Considering claims 66-67 & 130-131, Official Notice is taken that optical and magnetic storage means were very well known in the art at the time the invention was made. It would have been obvious for of ordinary skill in the art at the time the invention was made, to modify Gulla to utilize optical and/or magnetic storage means at least for the well-known high-density storage capacities.

Considering claim 135, Official Notice is taken that at the time the invention was made, designing a system with redundant apparatus was very well known in the art. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Gulla with the known technique of redundant design, at least for the known improvement of a more reliable system.

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Considering claims 136 & 143, the claimed apparatus for distribution of digitized images comprising elements that correspond with subject matter mentioned above in the rejection of claims 1 & 70 are likewise treated.

4. Claims 49-55, 59-60, 116-121 & 123-125 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gulla, Banker & Harper, further in view of Budow, (U.S. Pat # 5,521,631).

Considering claims 49-50 & 116, Gulla teaches a storage means for storing at least one transmitted video program & that it is desirable to maintain a cinema hall with a plurality of rooms, pg. 12, lines 12-20 & pg. 17, lines 9-15. However, Gulla does not teach that the storage means may comprise a data bank comprising an array of magnetic storage devices, which may be shared by multiple auditoriums. Nevertheless, Budow discloses a system wherein video data is transmitted to a video server 12 within a particular establishment, such that the video server is shared by a plurality of rooms within the establishment, Abstract & col. 9, lines 1-60. The plurality of rooms in Budow corresponds with the plurality of auditoriums recited in the claims, since they are both directed separate locations for distributing video information within a single physical establishment. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the system of Gulla with a means for sharing a storage device between a plurality of presentation rooms, at least for the benefit of efficiently providing the same video program to a plurality of destinations within a single establishment, as taught by Budow, (col. 2, lines 3-65 & col. 4, lines 1-20).



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As for claims 50 & 116, Budow discusses the use of an array of hard disk storage devices, col. 4, lines 11-14 & col. 9, lines 5-20. It would have been obvious for one of ordinary skill in the art at the time the invention was made, and one would have been motivated to modify the combination of Gulla & Budow to utilize magnetic storage device for the well-known benefits of high capacity storage.

Considering claims 51-52 & 117-118, Official Notice is taken that at the time the invention was made, parallel striping of an array of video discs was very well known in the art. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Gulla & Budow with the well known technique of parallel striping at least for its well known benefits of efficiently off-loading a plurality of video programs substantially simultaneously from a plurality of discs.

Considering claims 53 & 119, Gulla teaches storing a viewing history of authorized programs and transmitting the history of projections to a central facility, pg. 151, 4-8

Considering claims 54 & 120, Budow teaches that the customer rooms, which correspond with auditoriums recited in the claims, are controlled and monitored by the systems control computer, col. 3, lines 28-60 & col. 10, lines 18-67.

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Considering claims 55 & 121, the claimed created program sets reads on the user in Budow enabled to order a programming from a menu of programming, col. 11, lines 59-65; col. 12, lines 25-61 & col. 13, lines 29-52.

Considering claims 123-124, it would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Gulla & Budow with the known feature of controlling various operations within a network from devices not located at a central facility, at least for the desirable advantage of a more flexible system.

Considering claims 59-60 & 125, Budow teaches a local video server network which distributes stored video data to one or more of a plurality of rooms, which corresponds with the claimed auditoriums.

### *Conclusion*

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 872-9306, (for formal communications intended for entry)

**Or:**

(703) 746-6861 (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

*Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington,  
VA., Sixth Floor (Receptionist).*

Any inquiry concerning this communication or earlier communications from the  
examiner should be directed to Reuben M. Brown, whose telephone number is (703) 305-2399.  
The examiner can normally be reached on M-F (8:30-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's  
supervisor, Andrew I. Faile can be reached on (703) 305-4380. The fax phone numbers for the  
organization where this application or proceeding is assigned is (703) 872-9306 for regular  
communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding  
should be directed to the receptionist whose telephone number is (703) 305-4700.

Reuben M. Brown



VIVEK SRIVASTAVA  
PRIMARY EXAMINER